# ATTACHMENT A

## Amendments to the Claims

*This listing of claims will replace all prior versions, and listings, of claims in the application.*

1. (Currently Amended) Sound-absorbing device ~~for placement~~ which is placed in a sound field in air~~,~~ ~~and~~ for absorbing acoustic energy from said sound field at least in a predetermined low-frequency region, the device comprising:

a body containing one or more cavities ~~(4, 12, 13)~~, ~~where at least a portion of the~~ said body including an outer surface of the body with at least a portion thereof ~~is~~ in contact with said sound field, and ~~where~~ said body ~~is~~ being inflatable/extendable and collapsible/compressible; and

a means for actively varying a volume in said one or more cavities during the supply of a gas to or ~~the~~ removal of the gas from said one or more cavities ~~at least one cavity (4, 12, 13), respectively, whereby~~ in order to vary the absorption coefficient ~~(~~$\alpha$~~)~~ and/or the resonance frequency of said body ~~can be varied, thus~~ and hence for actively determining the absorption coefficient and/or the frequency region in which maximum absorption ~~will~~ takes place.

2. (Original) Sound-absorbing device according to claim 1, where said low-frequency region has an upper frequency limit of approximately 200 Hz.

3. (Original) Sound-absorbing device according to claim 1, where said low-frequency region is 50 Hz to 125 Hz.

4. (Currently Amended) Sound-absorbing device according to claim 1, where ~~the~~ a material of said body is chosen such that there exists a substantial impedance match between the body and the surrounding sound field, at least in said low-frequency region.

5. (Currently Amended) Sound-absorbing device according to claim 1, where said gas is supplied to/removed from said at least one cavity ~~(4, 12, 13)~~ via a valve provided in a conduit between said at least one cavity and a source of that gas, where the valve is provided with means for remote-controlling of the valve.

6. (Currently Amended) Sound-absorbing device according to ~~any of the preceding claims~~ claim 1, where the body is furthermore provided with attachment means ~~(32, 37)~~ for engagement with corresponding attachment means provided on one or more sound-absorbing devices ~~according to any of the preceding claims~~.

7. (Currently Amended) Sound-absorbing device according to claim 1, where at least one of said one or more ~~at least one~~ cavities ~~(4, 12, 13)~~ is provided with sound-absorbing material ~~(3)~~ within said cavity.

8. (Currently Amended) Sound-absorbing device according to claim 1, where ~~said~~ at least one of said one or more cavities ~~cavity~~ is provided with internal self-inflating/self-expanding means.

9. (Currently Amended) Sound-absorbing device according to claim 1, where said body is ~~bodies are~~ surrounded by an inflatable/expandable and collapsible/compressible frame structure ~~(8, 15', 15'')~~ for providing sufficient rigidity and/or the desired shape and/or the desired depth to said body~~bodies~~.

10. (Currently Amended) Sound-absorbing assembly comprising at least one sound-absorbing device according to ~~any of the preceding claims 1 to 9~~claim 1, the assembly comprising a support or suspension structure ~~(41)~~ provided with roller means ~~(43)~~ upon which said devices can be wound and drive means for rotating said roller means ~~(43)~~.

11. (Currently Amended) Sound-absorbing assembly according to claim 10 furthermore comprising at least one high-frequency absorbing means ~~(46)~~ supported on

the support or suspension structure ~~(41)~~ on one or more second roller means ~~(47)~~ upon which said high-frequency absorbing means ~~(46)~~ can be wound.

12. (Currently Amended) Sound-absorbing assembly according to claim 10 ~~or 11~~, where the support or suspension structure ~~(41)~~ is formed as a housing for accommodating the low and high-frequency absorbing devices in an inactive state of the assembly.

13. (Currently Amended) Sound-absorbing assembly according to claim 10, ~~11 or 12,~~ where the assembly furthermore is provided with means for automatically winding up at least the low-frequency absorbing device ~~(42)~~ in case of fire.

14. (Currently Amended) Sound-absorbing assembly according to claim 11, where said high-frequency absorbing device ~~(46)~~ is a sheet of fabric of a material with sufficient flow resistance to provide high-frequency acoustic absorption.

15. (Currently Amended) A method for absorbing sound from a sound field in air, comprising the steps of:

introducing ~~introduction of~~ at least one at least partially resilient body,

~~characterised~~characterized by an acoustic mass and compliance determining a resonance frequency and hence an active frequency region for substantial absorption of acoustic energy from said sound field and an outer surface exhibiting a chosen acoustic resistance, into said sound field~~medium~~, such that said sound field ~~medium~~ is in contact with at least a portion of an outer surface of said at least one body, whereby said at least one body ~~will~~ absorbs acoustic energy from said sound field, and

~~characterised in that~~

actively varying a volume of said at least one of said bodies which is/are inflatable/extendable and collapsible/compressible during ~~the~~ a supply of a gas to or ~~the~~ removal of the gas from said at least body~~one cavity~~, ~~respectively,~~ whereby the absorption coefficient ~~(α)~~ and/or the resonance frequency of said body ~~can be~~ is

varied~~,~~ ~~thus~~ and hence actively determining the frequency region in which maximum absorption ~~will~~ takes place.

16. (Currently Amended) A method according to claim 15, ~~characterised~~characterized in that the acoustic resistance of those portions of said one or more bodies that is/are in contact with said sound field is chosen such that a substantial impedance match exists between these portions and the surrounding sound field.

17. (Currently Amended) A method according to claim 15 ~~or 16~~, where the resonance frequency $f_0$, acoustic resistance ratio ~~Ξ~~ $\mu$, maximum absorption coefficient $\alpha_{max}$ and absorption bandwidth Br are given by

$$f_0 = \frac{c}{2\pi}\sqrt{\frac{\rho}{md}} \qquad (1)$$

$$\mu = \frac{r_i}{r_s} \qquad (2)$$

$$\alpha_{max} = \frac{4\mu}{(1+\mu)^2} \qquad (3)$$

$$\frac{B_r}{f_0} = (1+\mu)\sqrt{\frac{\rho d}{m}} \qquad (4)$$

18. (Currently Amended) A method for reducing the reverberation time of a room at least in a low-frequency region from a given reverberation time ~~(~~$T_{60}$~~)~~ to a desired reverberation time ~~(~~$T_{60,S}$~~)~~ comprising the introduction of ~~one or more devices according to any of the preceding claims 1 to 9~~ claim 1, ~~or~~ one or more ~~of the sound-absorbing~~ assemblies according to ~~any of the preceding~~ claims 10 ~~to 14~~ into the room.

19. (Currently Amended) A method according to claim 18, where ~~the~~ a required total surface area $S_s$ of said one or more bodies of said one or more assemblies is determined by the equation

$$\alpha = \frac{55.3V}{cS_S}\left(\frac{1}{T_{60}^S} - \frac{1}{T_{60}}\right) \qquad (5)$$

where α is the absorption coefficient of the absorbing device/devices, V is the volume of the room and c is the speed of sound.

20. (Currently Amended) A method according to claim 18, where said reduction of reverberation time predominantly takes place in a low-frequency region determined by a resonance frequency and absorption bandwidth determined ~~according to claim 17~~ where the resonance frequency $f_0$, acoustic resistance ratio μ, maximum absorption coefficient $\alpha_{max}$ and absorption bandwidth Br are given by

$$f_0 = \frac{c}{2\pi}\sqrt{\frac{\rho}{md}} \qquad (1)$$

$$\mu = \frac{r_i}{r_s} \qquad (2)$$

$$\alpha_{max} = \frac{4\mu}{(1+\mu)^2} \qquad (3)$$

$$\frac{B_r}{f_0} = (1+\mu)\sqrt{\frac{\rho d}{m}} \qquad (4).$$

21. (Currently Amended) A system for reducing the reverberation time of a room comprising a plurality of sound-absorbing ~~devices~~ assemblies according to ~~any of the preceding claims 1 to 9~~ claim 10, ~~or/and a plurality of sound-absorbing assemblies according to any of the preceding claims 10 to 14,~~ the system furthermore comprising conduits through which gas can be supplied from a source to each of said ~~devices or/and~~ assemblies either individually or in predetermined groups of said ~~devices or~~ assemblies and removed from these.

22. (Currently Amended) A system according to claim 21, where said ~~devices or/and~~ assemblies are provided with valve means for controlling the supply of gas to/removal of gas from said ~~devices or~~ assemblies.

23. (Currently Amended) A system according to claim 22, where said valve means are remote controllable and where the system is furthermore provided with a central control device for controlling the degree of inflation/extension of said ~~devices or~~ assemblies.

24. (Currently Amended) A system according to ~~any of the preceding claims 21 to 23~~ claim 21, where the system furthermore comprises means for measuring the reverberation time of a room in which the system is installed.

25. (Currently Amended) A system according to ~~any of the preceding claims 21 to 24~~ claim 21 furthermore comprising data storage means for storing for instance measured reverberation times and various corresponding parameters of the ~~devices or/and~~ assemblies.

26. (Currently Amended) A listening room, for instance to be used for the performance of live or recorded music, comprising ~~one or more of said sound-absorbing devices according to any of the preceding claims 1 to 9~~ claim 1, ~~or/and~~ one or more of said ~~sound-absorbing~~ assemblies according to ~~any of the preceding~~ claims 10 ~~to 14, or/and said system according to any of the preceding claims 21 to 25~~.

27. (Currently Amended) The use of sound-absorbing devices according to ~~any of the preceding claims 1 to 9~~ claim 1 for altering the reverberation time of a room.

28. (Currently Amended) The use of sound-absorbing assemblies according to ~~any of the preceding claims 10 to 14~~ claim 10 for altering the reverberation time of a room.

29. (Currently Amended) The use of the system according to ~~any of the preceding claims 21 to 25~~ claim 21 for altering the reverberation time of a room.